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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,348	04/19/2004	Atsushi Nagasawa	252012US0CONT	9570

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EXAMINER	
THOMAS, BRANDI N	

ART UNIT	PAPER NUMBER
2873	

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/826,348	NAGASAWA ET AL.	
	Examiner	Art Unit	
	Brandi N Thomas	2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-9 and 11-16* is/are rejected.

7)☒ Claim(s) *5,10 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/19/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *Detailed Action*.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. Acknowledgement is made of receipt of Information Disclosure Statement(s) (PTO-1449) filed 4/19/04. An initialed copy is attached to this Office Action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4, 6-9, and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (6294313 B1) in view of Tamura et al. (6475688 B1).

Regarding claims 1 and 2, Kobayashi et al. teaches a lens sheet comprising a lens portion with a plurality of lens elements (302) arranged in at least one side and a shielding layer (307) provided in a non-transmitting portion of a light radiation plane, where in the shielding layer (307) is provided on a layer made of a cured photo-curing composition (303) (see figure 26) except that it does not show the photo-curing composition is composed of 100 weight parts of photo curing resin composition having a surface free energy of 30 mN/m or more and 0.01 to 1.0

weight parts of compound having a surface free energy of 25 mN/m or less. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a surface free energy with 30 mN/m or more and 25 mN/m or less, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. Tamura et al. shows that it is known to provide a photo-curing composition composed of 100 weight parts of photo curing resin composition and 0.01 to 1.0 weight parts of compound for the blending ratio for the addition of releasing agents (col. 16, lines 38-40). Therefore it would have been obvious to someone of ordinary skill in the art at the time the invention was made to combine the teaching of Kobayashi et al. with the weight parts of Tamura et al. for the purpose of providing the blending ratio for the addition of releasing agents (col. 16, lines 38-40).

Regarding claims 3 and 15, Kobayashi et al. discloses wherein the lens portion is a group of convex cylindrical lenses one-dimensionally arrayed on a light incidence plane (col. 42, lines 66-67 and col. 43, lines 1-15) (figure 28).

Regarding claims 4 and 16, Kobayashi et al. discloses wherein the lens portion is a group of convex cylindrical lenses two-dimensionally arrayed on a light incidence plane (col. 42, lines 66-67 and col. 43, lines 1-15) (figure 27).

Regarding claim 6, Kobayashi et al. teaches a method of producing a lens sheet which includes a lens portion with a plurality of lens elements (302) arranged in at least one side and a shielding layer (307) provided in a non-transmitting portion of a light radiation plane, the method comprising the following steps: coating photo-curing composition (303) (see figure 26) on a light radiation plane of the lens sheet to form a layer made of photo-curing composition (col. 24, lines

18-19 and col. 39, lines 33-43), radiating light from the side opposite to the layer of the photo-curing composition to selectively cure a light transmitting portion of the layer of the photo-curing composition with the layer of the photo-curing composition being contacted with a medium having a free surface energy (figure 28); and painting colored pigment on the layer of the photo-curing composition (col. 40, lines 45-54) to form a shielding layer in a non-transmitting portion of light (col. 47, lines 60-67 and col. 48, lines1-11) except that it does not show the photo-curing composition is composed of 100 weight parts of photo curing resin composition having a surface free energy of 30 mN/m or more and 0.01 to 1.0 weight parts of compound having a surface free energy of 25 mN/m or less. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a surface free energy with 30 mN/m or more and 25 mN/m or less, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. Tamura et al. shows that it is known to provide an photo-curing composition composed of 100 weight parts of photo curing resin composition and 0.01 to 1.0 weight parts of compound for the blending ratio for the addition of releasing agents (col. 16, lines 38-40). Therefore it would have been obvious to someone of ordinary skill in the art at the time the invention was made to combine the teaching of Kobayashi et al. with the weight parts of Tamura et al. for the purpose of providing the blending ratio for the addition of releasing agents (col. 16, lines 38-40).

Regarding claims 7, 8, and 9, Kobayashi et al. discloses that a shielding layer can be formed by any well-known method without limitation (col. 47, lines 67 and col. 48, line 1). Therefore it is obvious to one of ordinary skill in the art at the time the invention was made to

comprise the steps of: painting the colored pigment; drying the colored pigment after a time period lapses as the colored pigment painted on the light transmitting portion is repelled to completely expose the layer of the photo-curing composition in the light transmitting portion; and further disclosed in claim 8, removing the colored pigment on the light transmitting portion. Furthermore, as in claim 9, attaching a layer of the photo-curing composition to each other; and radiating light from the side opposite to the layer of the photo-curing colored pigment and the photo-curing composites to selectively cure a light transmitting portion of the photo-curing colored pigment; and peeling the peelable sheet from the lens sheet.

Regarding claims 11 and 12, Kobayashi et al. discloses the claimed invention except for a medium having a lower surface free energy than that of air. It would have been obvious to have a lower surface free energy than that of air, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum value of a result effective variable involves only routine skill in the art (In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a lower surface free energy than that of air for the purpose of surface energy arises as a consequence of the bond disruption, which occurs when a surface is created and how the material reacts with the surrounding environment. The material is less reactive during exposure to air.

Regarding claim 12, Kobayashi et al. discloses the claimed invention except for a medium having a lower or higher surface free energy than that of air and water. It would have been obvious to have a higher surface free energy than that of water, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum

value of a result effective variable involves only routine skill in the art (In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a higher surface free energy than that of water for the purpose of surface energy arises as a consequence of the bond disruption, which occurs when a surface is created and how the material reacts with the surrounding environment. The material is more reactive during the exposure of water

Regarding claim 13, Kobayashi et al. discloses a lens sheet wherein the light radiated from the side opposite to the layer of the photo-curing composition but does not specifically disclose the light in a substantially parallel manner. It would have been obvious to one having ordinary skill in the art at the time the invention was made to providing light in a substantially parallel manner since it was known in the art that providing light in a substantially parallel manner improves focusing.

Regarding claim 14, Kobayashi et al. discloses wherein the lens sheet is used for a projection screen for an image display device which displays an image by projecting light from the rearward, and the light radiated from the side opposite to the layer of the photo-curing composition propagates substantially in the same direction as that of the projection light of the image (col. 49, lines 27-33) (see figure 30).

Allowable Subject Matter

5. Claims 5 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the independent claim(s), in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in claim(s) 5 and 10, wherein the claimed invention comprises wherein the lens portion is a fresnel lens constituted of fresnel lens faces and rising faces, wherein the fresnel lens faces are obtained by dividing the light radiation plane into the shape of a number of concentric circles and producing a lens sheet comprising; radiating light from the side opposite the layer of the photo-curing composition to cure and uncured portions of the layer of the photo-curing composition, as claimed.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakazawa et al. (5736278) discloses a substrate in which light-screening areas are formed with a resin having a high optical density to a film thickness thin.

Kashiwazaki et al. (5593757) discloses a process for producing a color filter, which permits the optional formation of a black matrix having desired patterns.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandi N Thomas whose telephone number is 571-272-2341. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BNT

BNT
August 5, 2004

RICKY MACK
PRIMARY EXAMINER